

WHAT IS CLAIMED IS

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1. A power supply control method adapted to a current-to-voltage conversion circuit which has a transformer for converting and outputting an input power, comprising:
- 10        stopping a power supply to the transformer when an output side of the current-to-voltage conversion circuit is in a no-load state; and
- starting a power supply to the transformer when an external voltage is applied to the output side of
- 15        the current-to-voltage conversion circuit.
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2. The power supply control method as claimed in claim 1, wherein the external voltage is applied to the output side of the current-to-voltage conversion circuit in a deactivated state, by controlling ON and OFF states of a switching circuit
- 25        within an electronic apparatus to which the current-to-voltage conversion circuit is coupled.
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3. A current-to-voltage conversion circuit having an active state and a deactivated state, comprising:
- an input section to input an input power;
- 35        a transformer to convert the input power into an output power;
- an output section to output the output power;

a first circuit to stop a power supply to the transformer and put the current-to-voltage conversion circuit into a deactivated state when the output section is in a no-load state; and

5 a second circuit to start a power supply to the transformer and put the current-to-voltage conversion circuit into an active state when an external voltage is applied to the output section.

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4. The current-to-voltage conversion circuit as claimed in claim 3, wherein said first  
15 circuit includes a first comparator to compare an output current on a secondary side of the transformer and a threshold current.

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5. The current-to-voltage conversion circuit as claimed in claim 4, further comprising:  
a drive control circuit to drive the  
25 transformer; and  
a first coupler circuit including a photo-coupler to couple an output of the first comparator and an input of the drive control circuit.

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6. The current-to-voltage conversion circuit as claimed in claim 3, wherein said second  
35 circuit includes a second comparator to compare an output voltage on a secondary side of the transformer and a threshold voltage.

7. The current-to-voltage conversion circuit as claimed in claim 4, wherein said second circuit includes a second comparator to compare an output voltage on a secondary side of the transformer and a threshold voltage.

8. The current- to-voltage conversion circuit as claimed in claim 5, wherein said second circuit includes a second comparator to compare an output voltage on a secondary side of the transformer and a threshold voltage.

9. The current-to-voltage conversion circuit as claimed in claim 6, further comprising:  
a drive control circuit to drive the transformer; and  
a second coupler circuit including a photo-coupler to couple an output of the second comparator and an input of the drive control circuit.

10. The current-to-voltage conversion circuit as claimed in claim 7, further comprising:  
a drive control circuit to drive the transformer; and  
a second coupler circuit including a photo-coupler to couple an output of the second comparator and an input of the drive control circuit.

11. The current-to-voltage conversion circuit as claimed in claim 8, further comprising:

5 a second coupler circuit including a photo-coupler to couple an output of the second comparator and the input of the drive control circuit.

10 12. An electronic apparatus connectable to a current-to-voltage conversion circuit having an output side,

said current-to-voltage conversion circuit assuming a deactivated state when the output side is  
15 in a no-load state and assuming an active state when an external voltage is applied to the output side,

said electronic apparatus comprising:

a switching circuit to apply the external voltage to the output side of the current-to-voltage  
20 conversion circuit in the deactivated state.

25 13. An electronic apparatus comprising:

a current-to-voltage conversion circuit comprising an input section to receive an input power, a transformer to convert the input power into an output power, an output section to output the  
30 output power, a first circuit to stop a power supply to the transformer and put the current-to-voltage conversion circuit into a deactivated state when the output section is in a no-load state, and a second circuit to start a power supply to the transformer  
35 and put the current-to-voltage conversion circuit into an active state when an external voltage is applied to the output section; and

a control section to apply the external voltage to the output section of the current-to-voltage conversion circuit in the deactivated state.

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14. A power supply control method adapted to a current-to-voltage conversion circuit which has a transformer for converting and outputting an input power, comprising:

detecting a no-load state of an output side of the current-to-voltage conversion circuit; and

stopping a power supply to the transformer when the output side of the current-to-voltage conversion circuit is in the no-load state.

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15. A current-to-voltage conversion circuit having an active state and a deactivated state, comprising:

an input section to input an input power;

a transformer to convert the input power into an output power;

an output section to output the output power;

a detecting section to detect a no-load state of the output section; and

a circuit to stop a power supply to the transformer and put the current-to-voltage conversion circuit into a deactivated state when the output section is in the no-load state.

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